







# Windows 3.1 Visual Interface Design

- ◆ **Black lines around all icons and interface elements add complexity**
- ◆ **Interface could be more visually consistent and intuitive**
- ◆ **UI elements are not scalable**

# Goals For New System Visuals

- ◆ **Improve visual communication**
  - Visual consistency to provide unity
  - Scalability for different resolutions and abilities
  - Immediacy - easy to figure out
- ◆ **Improve aesthetics**
  - Refine and simplify visuals
- ◆ **Natural progression from Windows 3.1**

# How We Achieve These Goals

## ◆3-D

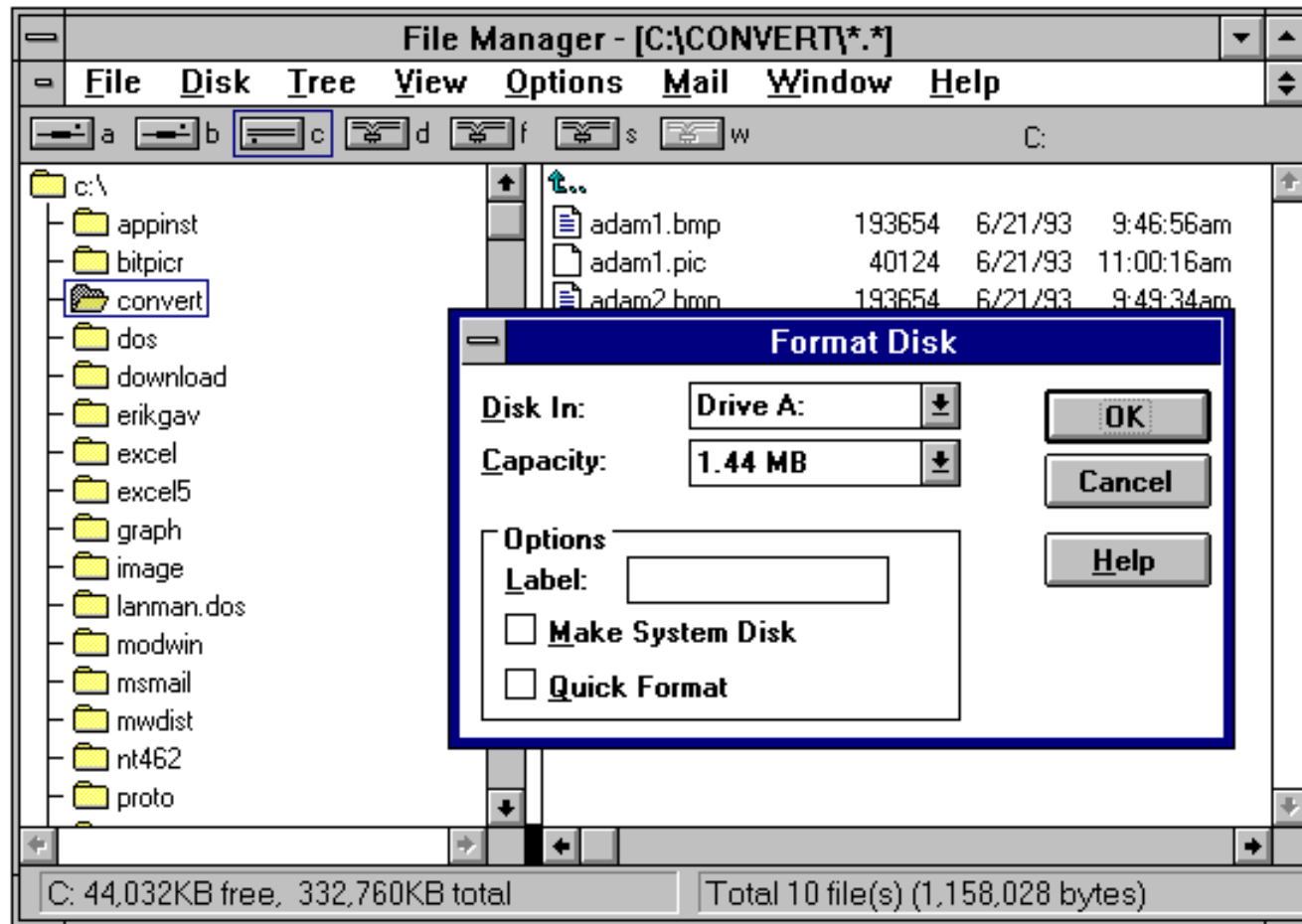
- White vs. grey communicates meaning
- 3-D provides affordances
- Use 3-D consistently

## ◆Layout

- Sizes of controls are same height
- Structure

## ◆Fonts

# Windows 3.1



Printer



Paintbrush

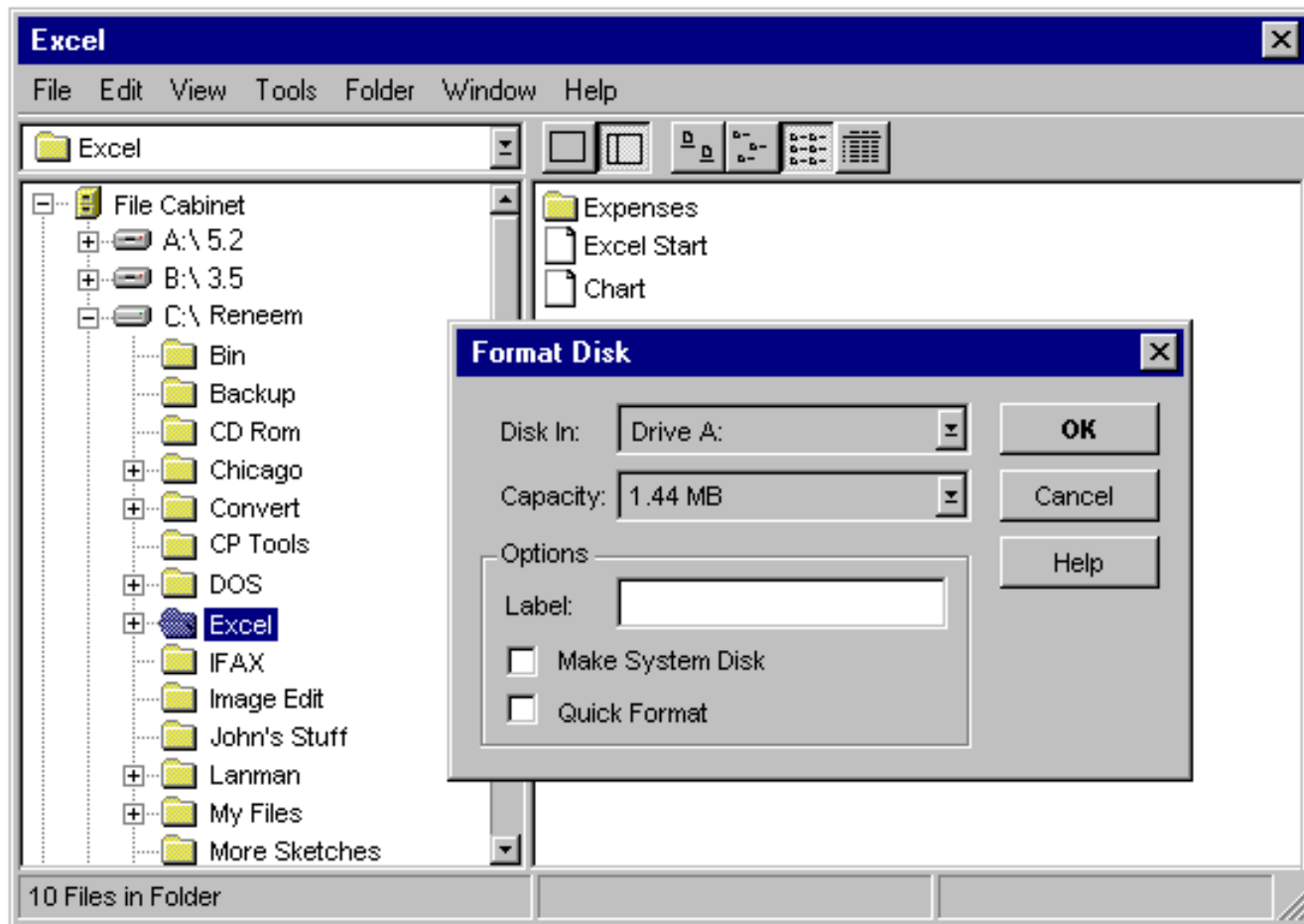


Notepad



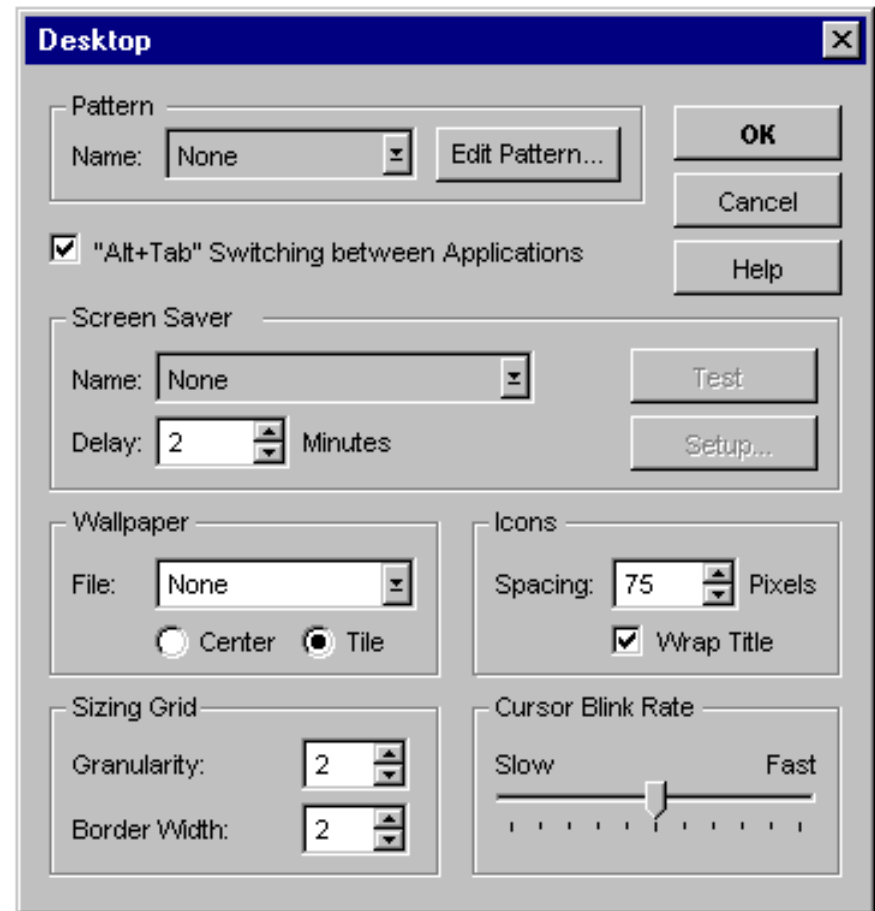
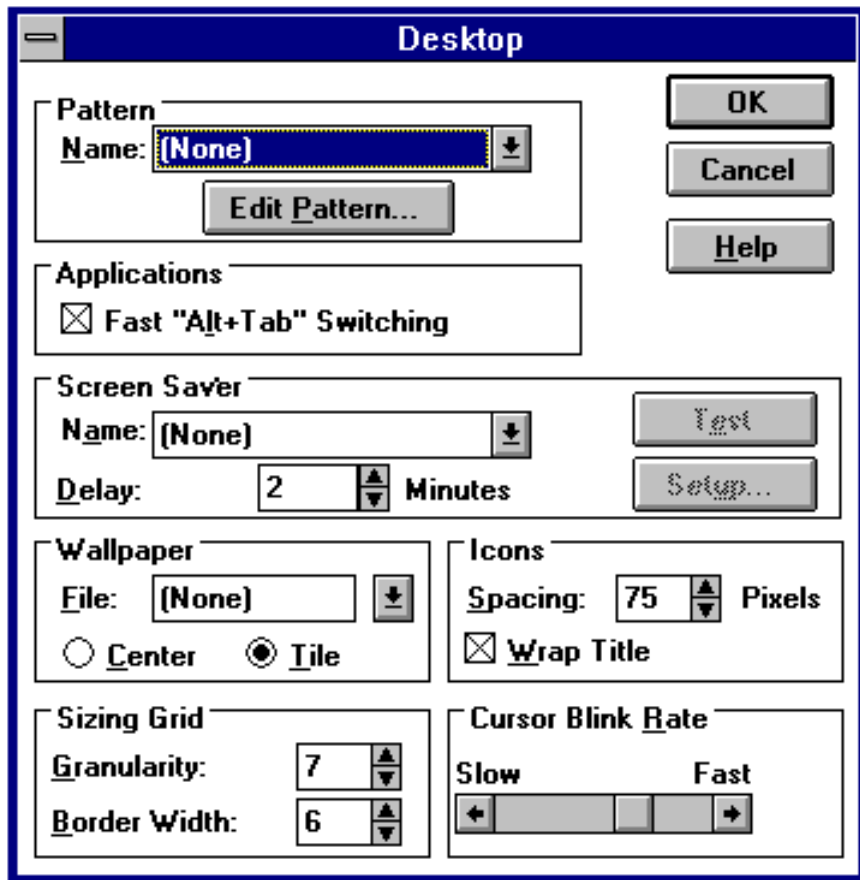
Write

# Windows 3.1 With New Visuals





# Windows 3.1 With New Visuals



# **Border Styles**

- ◆ **Building blocks for 3-D interface**
- ◆ **Based on 3-D in Windows 3.1**
- ◆ **Scale to all display resolutions and color configurations**
- ◆ **Inherent consistency with flexibility**
- ◆ **Provide interaction affordances**

# Individual Borders





## Individual Borders

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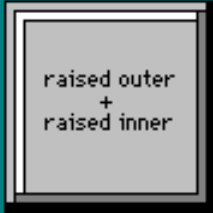










## Luminance Values

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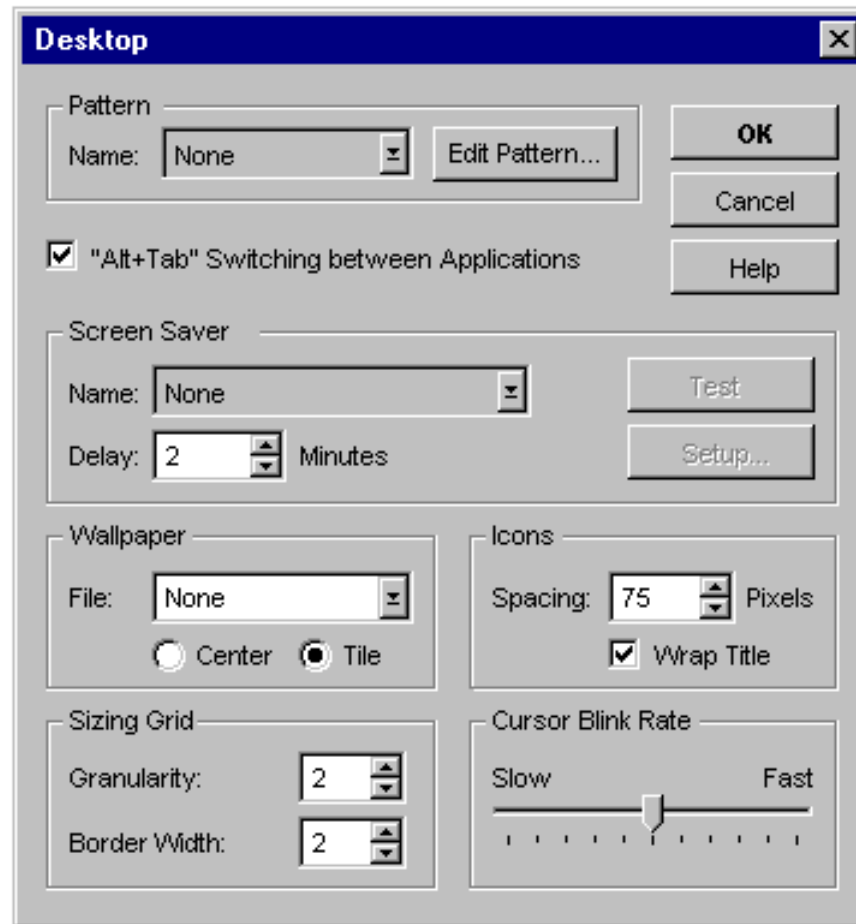
-  Highlight = 240 (white)
-  button face = 120 (light gray)
-  button shadow = 60 (dark gray)
-  window frame = 0 (black)

# Border Style Combinations

## Border Style Combinations and Uses

| Window Tile  | Push Button  | Button Down  | Entry Field   | Status Field  | Group Border   |
|--|--|--|---|---|--|
| basic window tile<br>scrollbar buttons<br>situations where<br>the background<br>color is variable  | graphic buttons<br>text buttons  | graphic btn down<br>text button down   | drop down fields<br>edit fields<br>workspace areas<br>spin fields<br>check/radio bttns<br>list boxes  | status text field   | grouping in dialogs<br>dividing in menus<br>basic dividing lines   |
| <br> <p>raised outer<br/>+<br/>raised inner</p> | <br> <p>raised outer<br/>+<br/>raised inner<br/>(TL reversed)</p> | <br> <p>sunken outer<br/>+<br/>sunken inner<br/>(TL reversed)</p> | <br> <p>sunken outer<br/>+<br/>sunken inner</p> | <br> <p>sunken outer</p> | <br> <p>sunken outer<br/>+<br/>raised inner</p> |

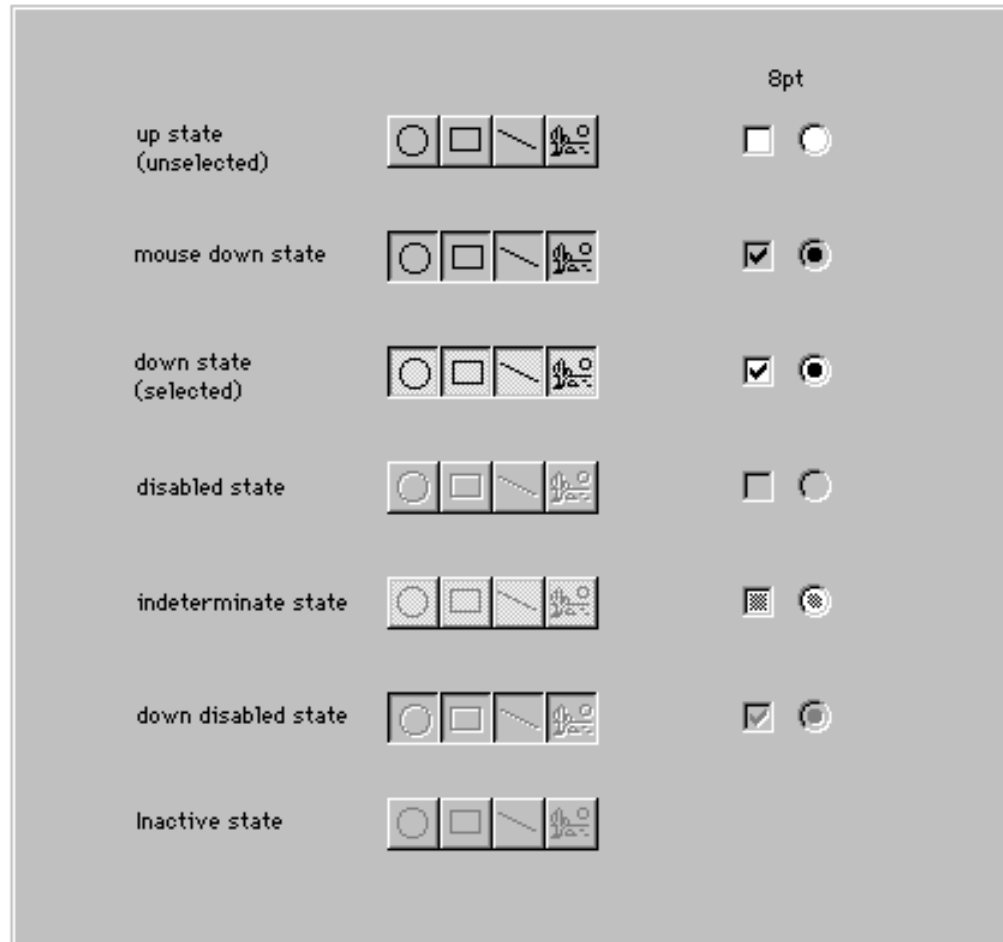
# Border Styles In Context



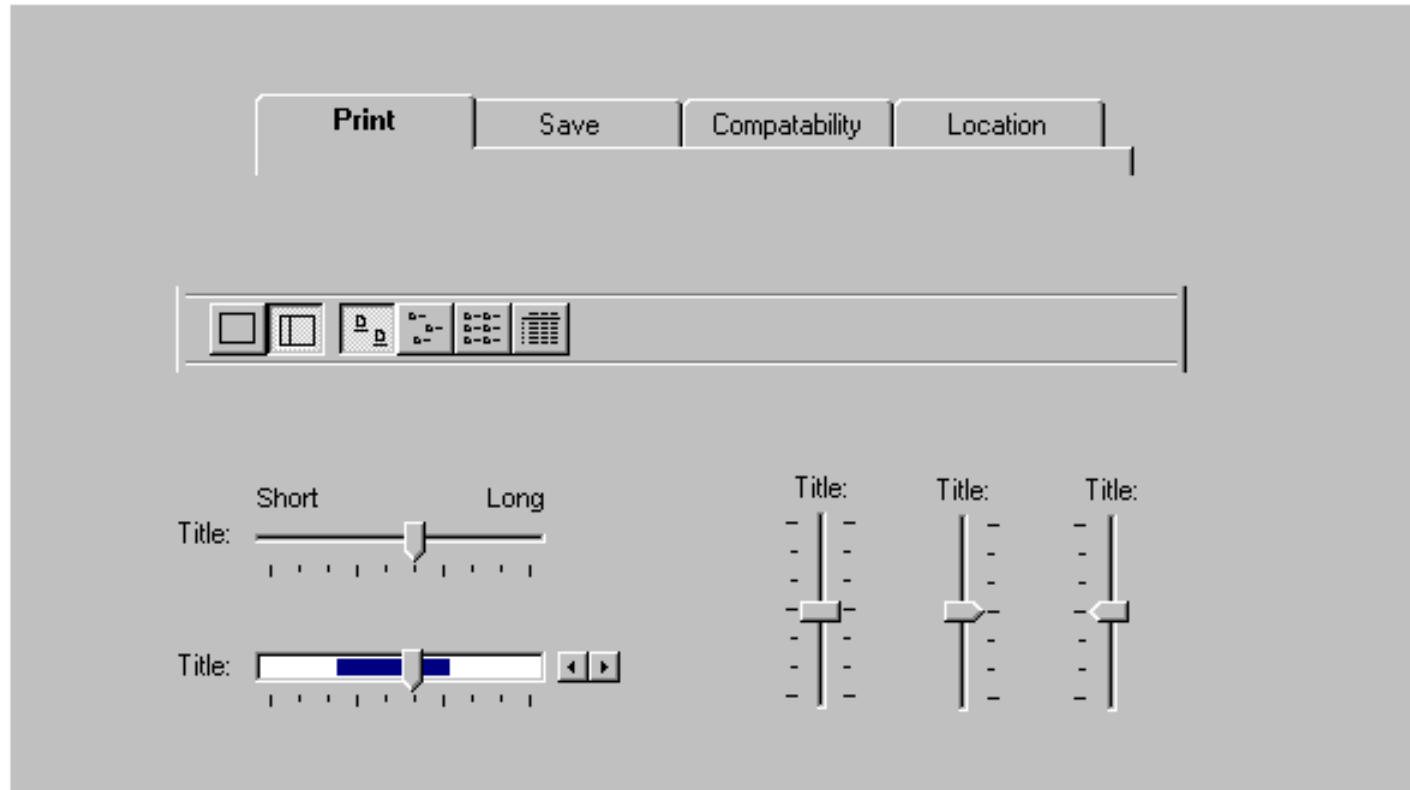
# System Support Of Controls

- ◆ Toolbars, palette windows, sliders, tabs, spin buttons, flat controls, progress indicators
- ◆ Control states

# Control States



# Other Supported Controls

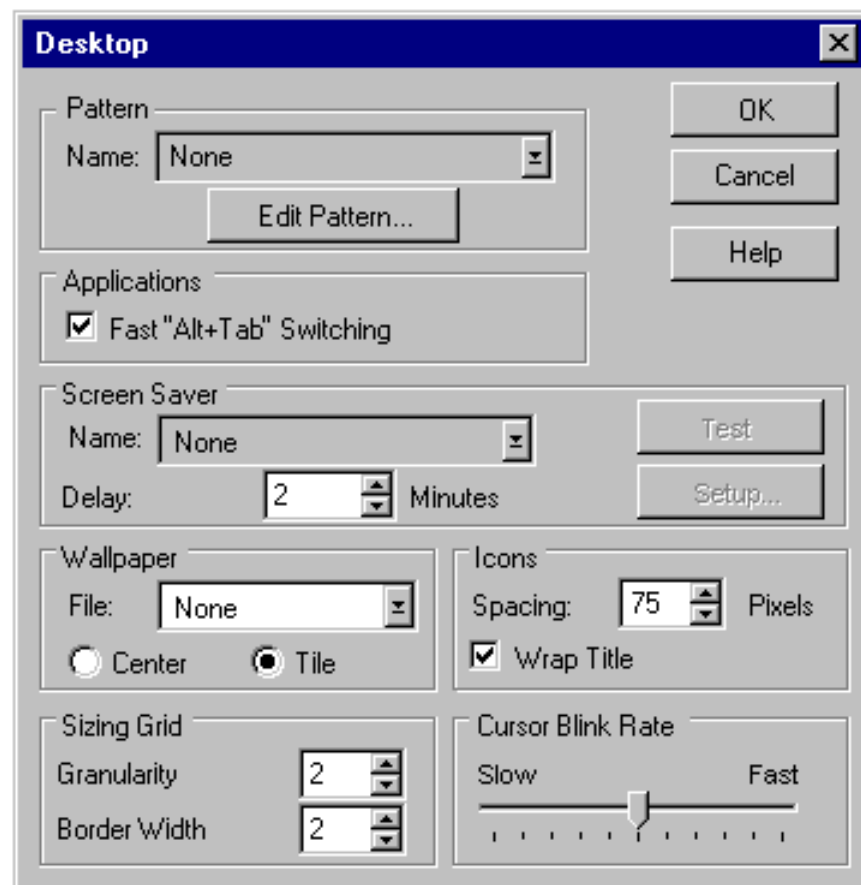
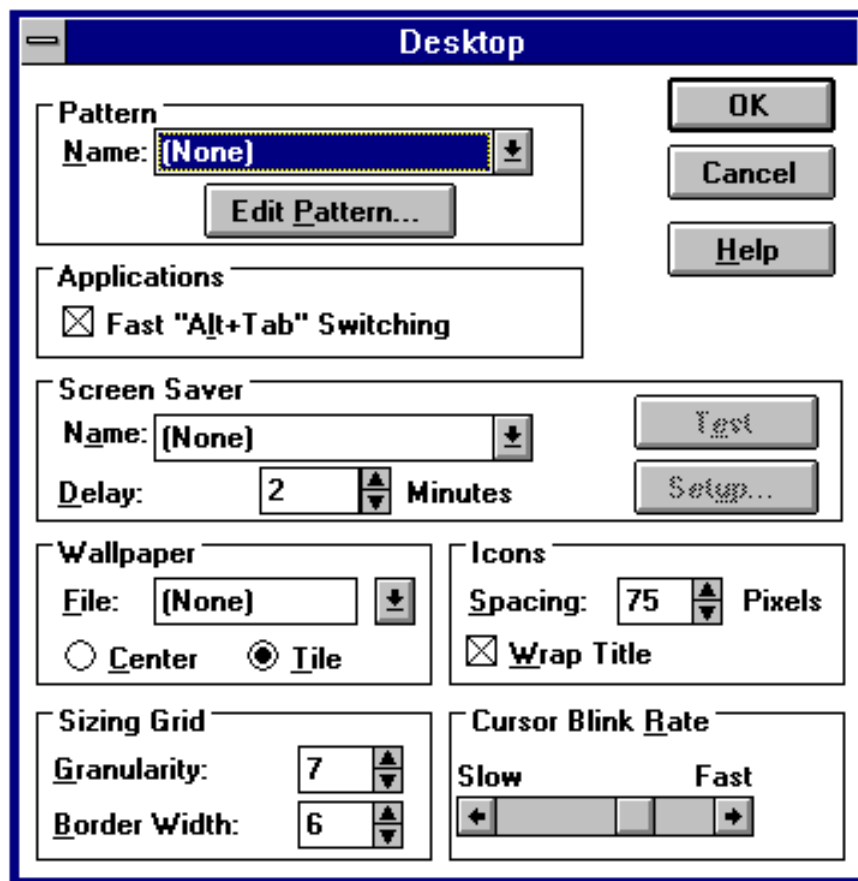




# Application Of Controls

- ◆ **Default settings and recommendations for size, placement, and spacing of dialog controls**

# Visual Comparison #1



# Visual Comparison #2

**Desktop**

**Pattern**  
Name: **(None)** [v]  
[Edit Pattern...]

**Applications**  
☒ Fast "Alt+Tab" Switching

**Screen Saver**  
Name: **(None)** [v] [Test]  
Delay: **2** [v] Minutes [Setup...]

**Wallpaper**  
File: **(None)** [v]  
☐ Center ☒ Tile

**Icons**  
Spacing: **75** [v] Pixels  
☒ Wrap Title

**Sizing Grid**  
Granularity: **7** [v]  
Border Width: **6** [v]

**Cursor Blink Rate**  
Slow Fast  
[v]

[OK] [Cancel] [Help]

**Desktop** [X]

**Pattern**  
Name: **None** [v] [Edit Pattern...]  
[OK] [Cancel] [Help]

☒ "Alt+Tab" Switching between Applications

**Screen Saver**  
Name: **None** [v] [Test]  
Delay: **2** [v] Minutes [Setup...]

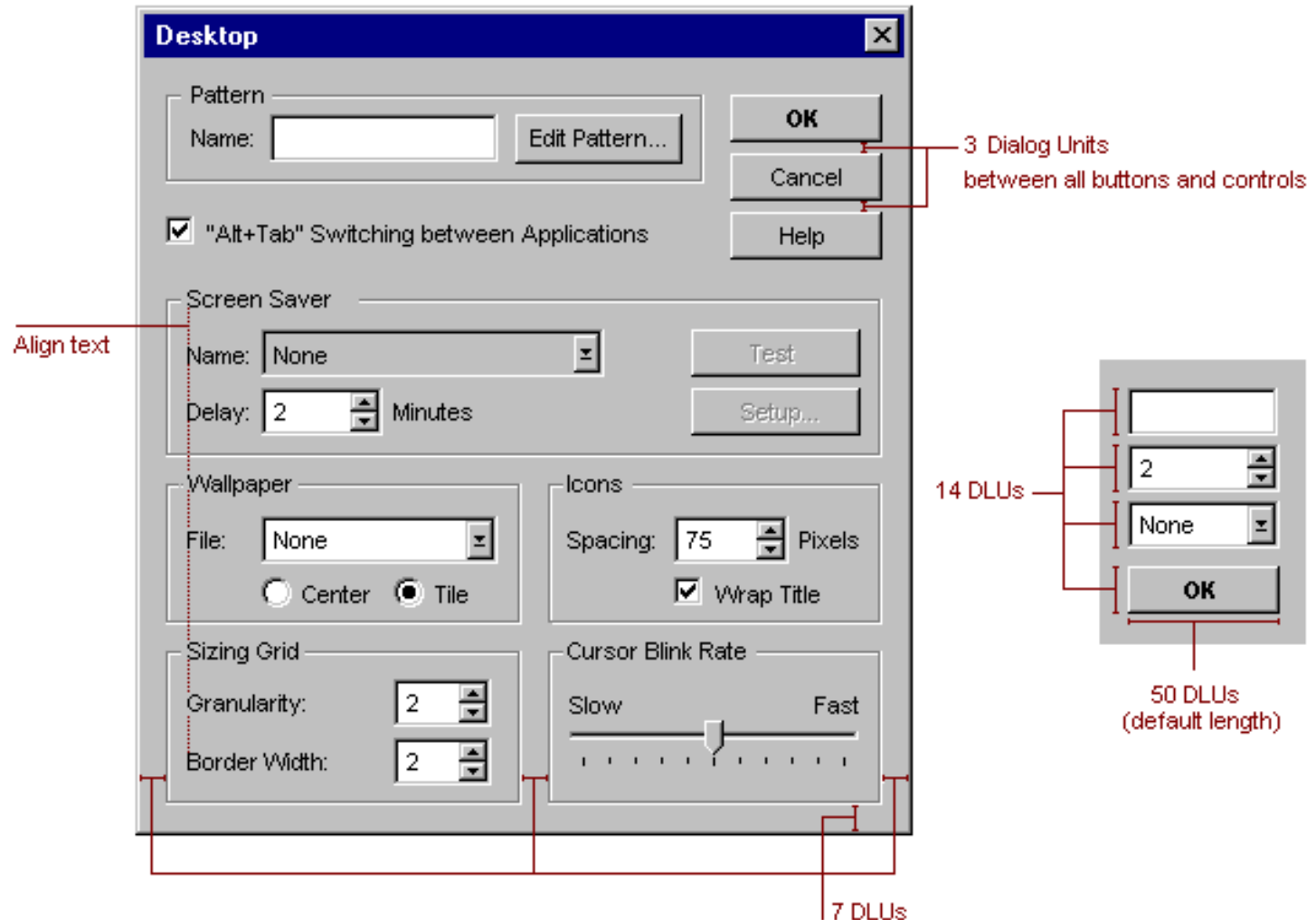
**Wallpaper**  
File: **None** [v]  
☐ Center ☒ Tile

**Icons**  
Spacing: **75** [v] Pixels  
☒ Wrap Title

**Sizing Grid**  
Granularity: **2** [v]  
Border Width: **2** [v]

**Cursor Blink Rate**  
Slow Fast  
[v]

# Layout Recommendations



# Before #1

**Backup Progress** [X]

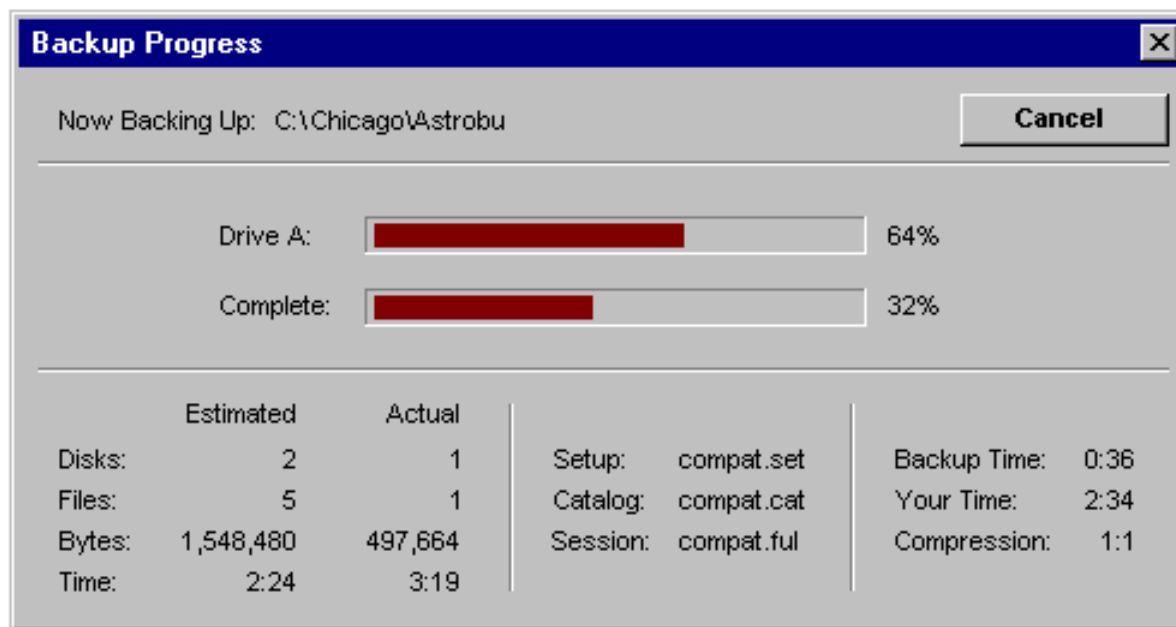
Now Backing Up

|          |                            |         |   |
|----------|----------------------------|---------|---|
| Drive A: | <div><div></div></div>     | Setup   | <input type="text" value="compat.set"/> |
| Drive B: | <div></div>                | Catalog | <input type="text" value="compat.ful"/> |
| Complete | <div><div></div> 20%</div> | Session | <input type="text" value="compat.ful"/> |

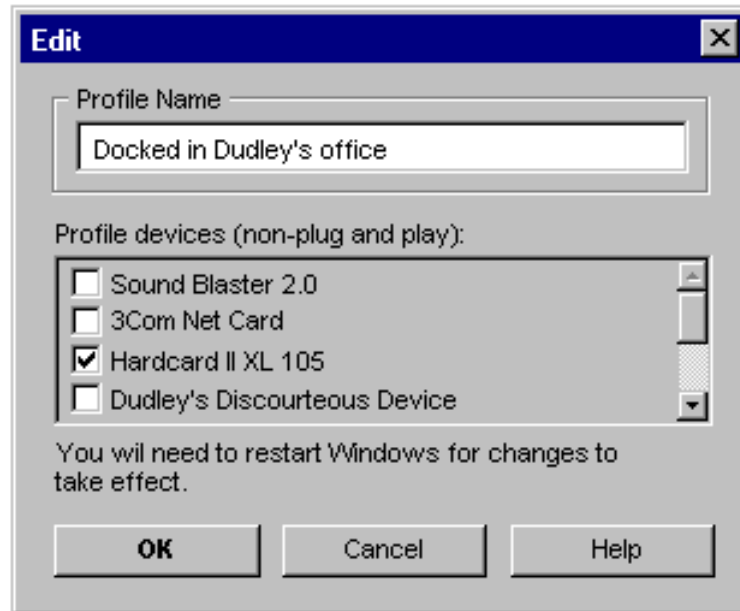
|       | Estimated                              | Actual                               |
|-------|--|--------------------------------------|
| Disks |  | <input type="text" value="1"/>       |
| Files | <input type="text" value="5"/>         | <input type="text" value="1"/>       |
| Bytes | <input type="text" value="1,548,480"/> | <input type="text" value="313,344"/> |
| Time  |  | <input type="text" value="0:22"/>    |

|              |                                   |
|--------------|-----------------------------------|
| Compare Time | <input type="text" value="0:13"/> |
| Your Time    | <input type="text" value="0:09"/> |
| Corrections  | <input type="text" value="0"/>    |

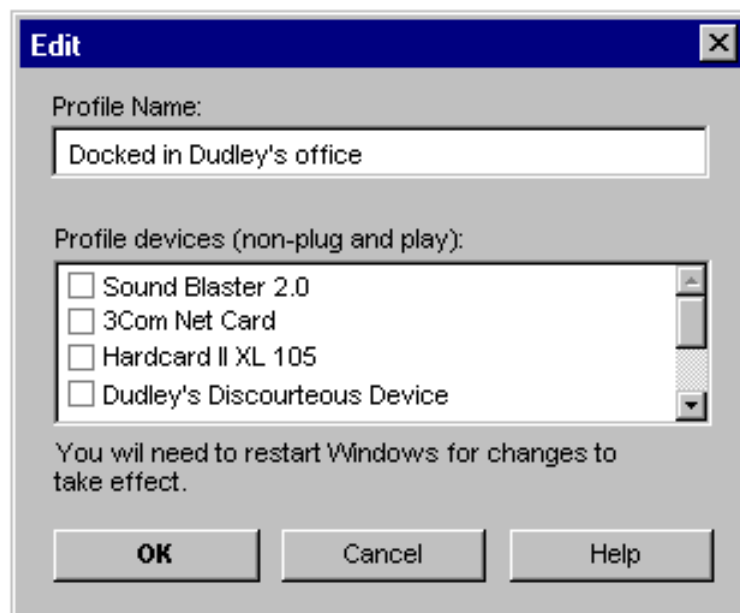
# After #1



# Before #2

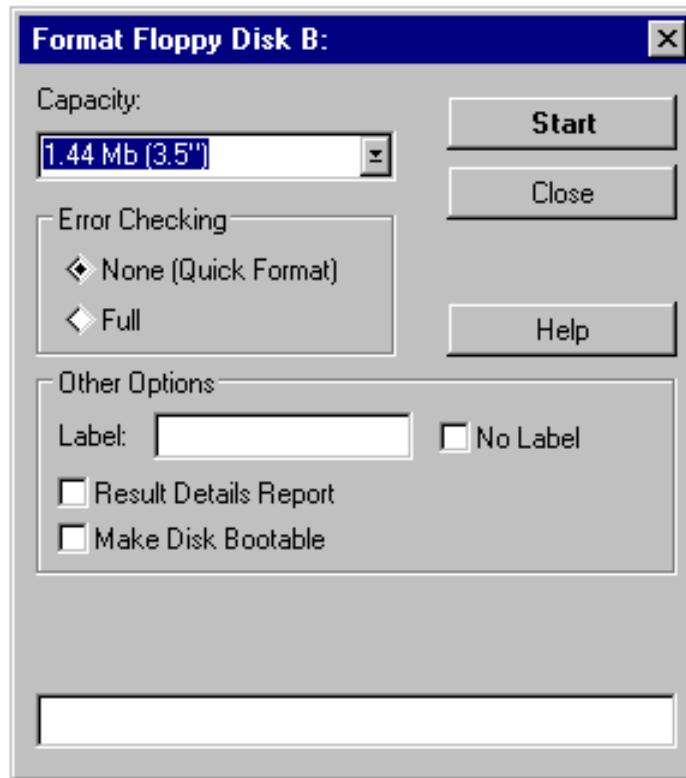


# After #2

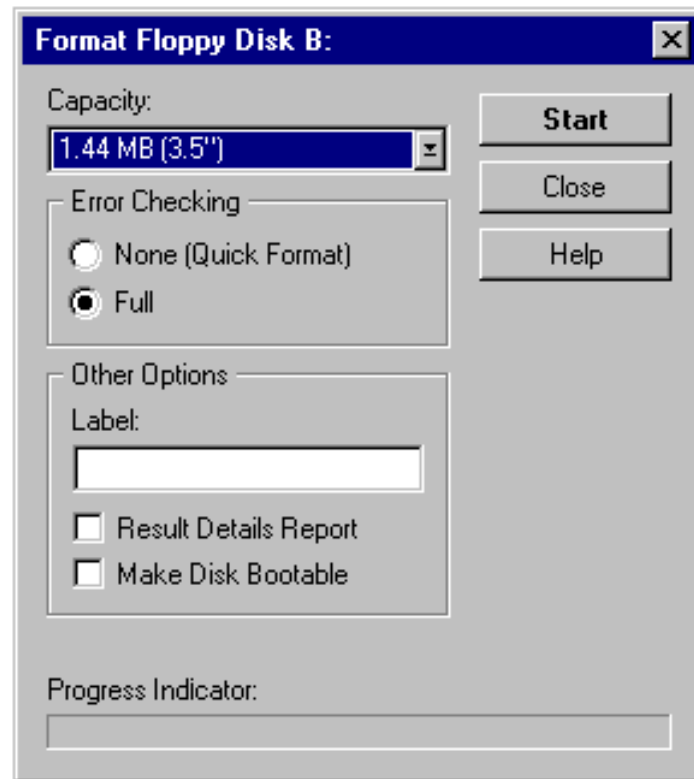




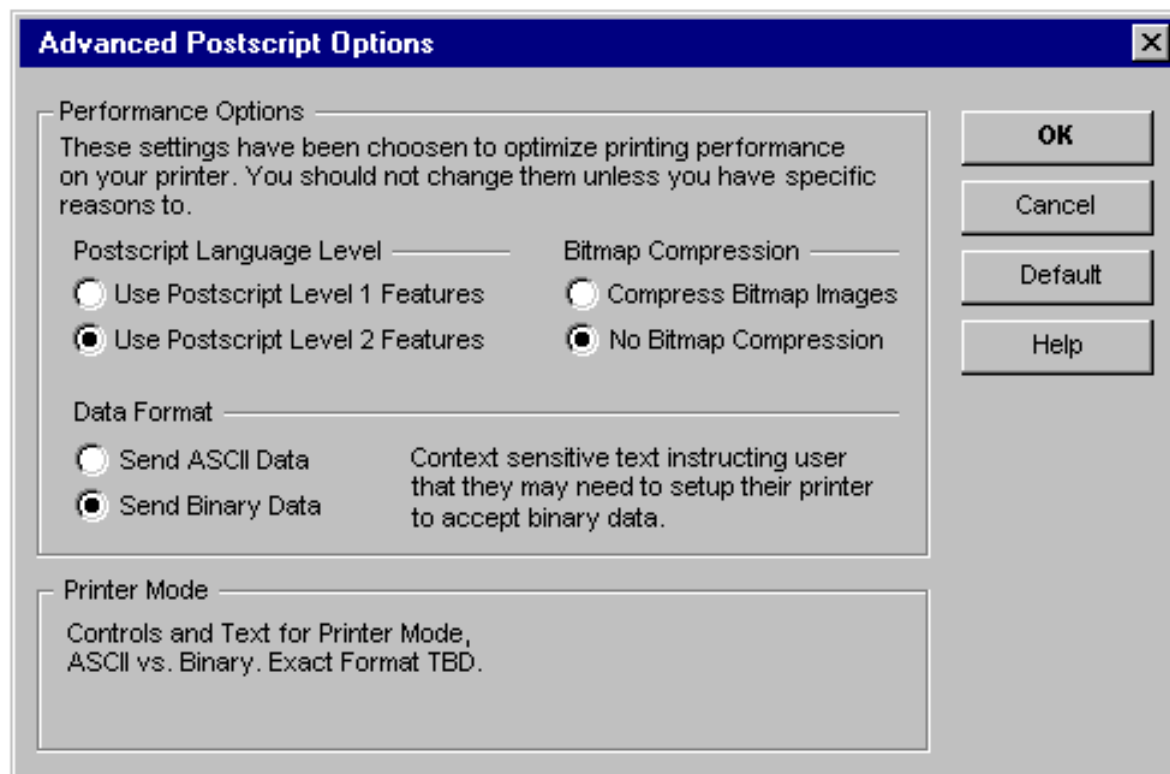
# Before #3



# After #3



# Alternate To Group Boxes



The image shows a Windows-style dialog box titled "Advanced Postscript Options". It has a blue title bar with a close button (X) in the top right corner. The dialog is divided into several sections. The first section, "Performance Options", contains a paragraph of text and two groups of radio buttons. The second section, "Data Format", also contains a paragraph of text and two radio buttons. The third section, "Printer Mode", contains a paragraph of text. On the right side of the dialog, there are four buttons: "OK", "Cancel", "Default", and "Help".

**Advanced Postscript Options** [X]

**Performance Options**

These settings have been chosen to optimize printing performance on your printer. You should not change them unless you have specific reasons to.

Postscript Language Level ———

☐ Use Postscript Level 1 Features

☒ Use Postscript Level 2 Features

Bitmap Compression ———

☐ Compress Bitmap Images

☒ No Bitmap Compression

**Data Format** ———

☐ Send ASCII Data

☒ Send Binary Data

Context sensitive text instructing user that they may need to setup their printer to accept binary data.

**Printer Mode**

Controls and Text for Printer Mode, ASCII vs. Binary. Exact Format TBD.

OK

Cancel

Default

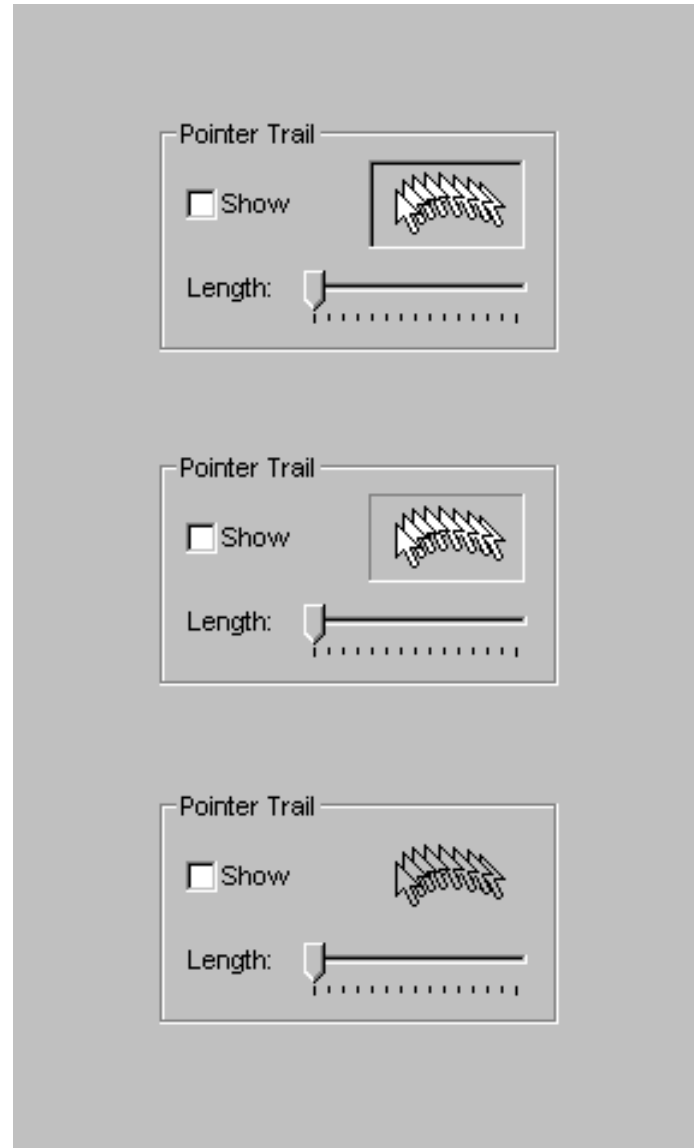
Help

# When To Use 3-D With Graphics

**Incorrect use of 3-D**

**Solution #1:  
(dynamic graphic)**

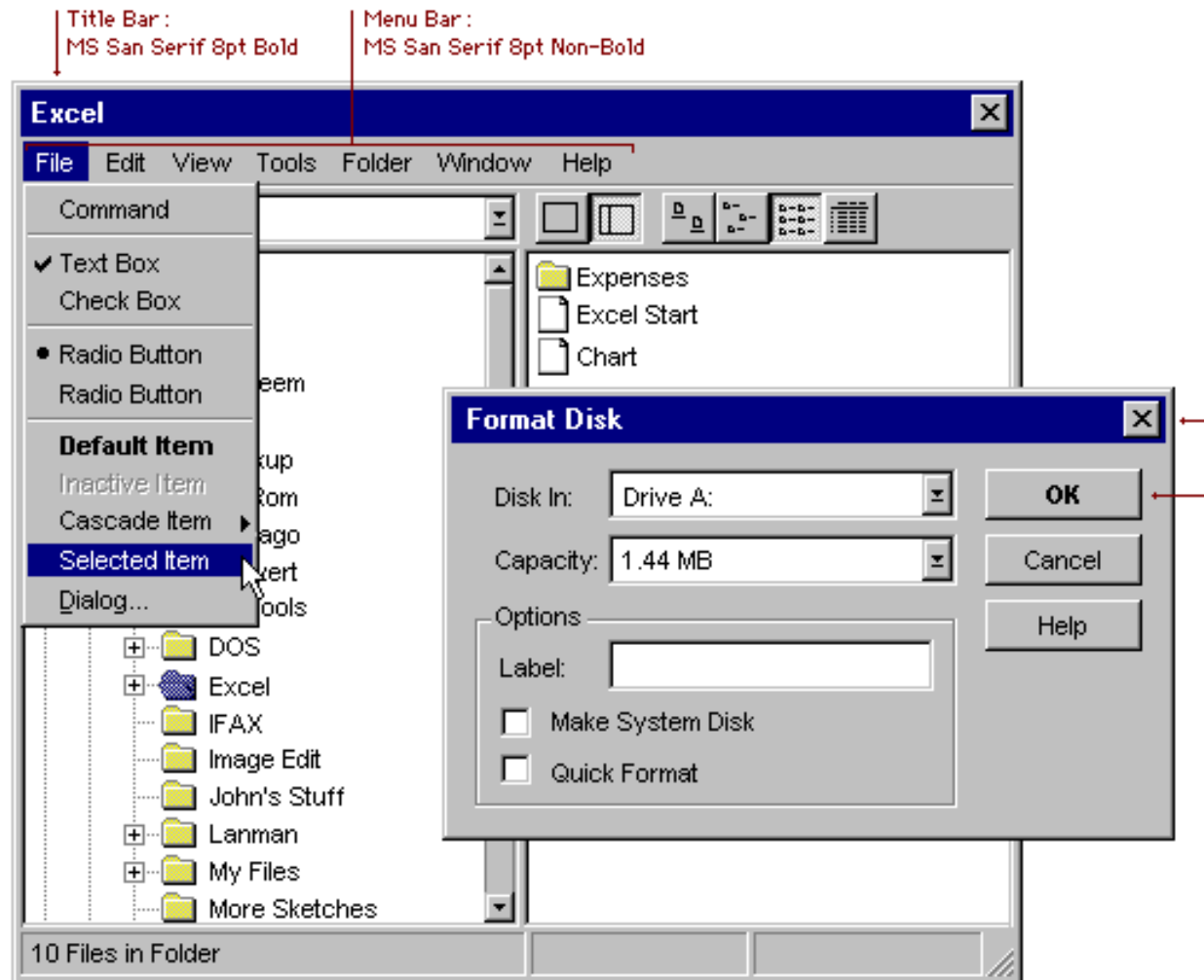
**Solution #2:  
(static graphic)**



# Fonts

- ◆ **Application of font styles to dialogs and interface**
- ◆ **Font states (active, inactive...)**

# Default Font Specifications



All text in dialogs is MS San Serif 8pt Non-Bold  
Default button and title bar text are Bold

# Icon Style

- ◆ **Based on Windows 3.1 icons**
- ◆ **Illustrative**
- ◆ **Real-world 3-D objects**
- ◆ **Upper-left-hand corner light source**

# The Difference

Windows 3.1 Style

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Chicago Style

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# General Icon Specifications

- ◆ Large icons 32x32 pixels
- ◆ Small icons 16x16 pixels
- ◆ 16 color and black and white
- ◆ Application icons and document icons are both needed

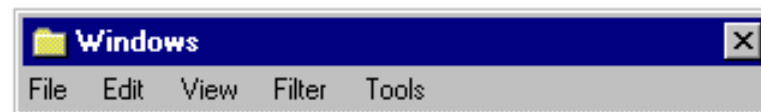
# Icons In Context

All icons need to have 32x32 and 16x16 sizes \_\_\_\_\_



In Context \_\_\_\_\_

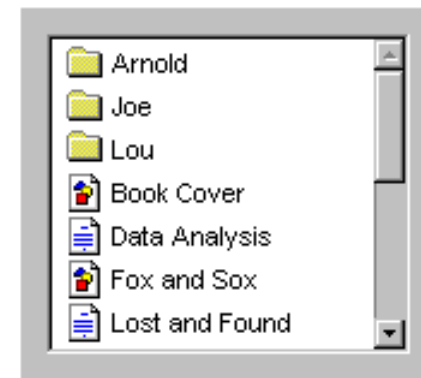
Titlebar



Minimized Window










List view



# Application And Document Icons

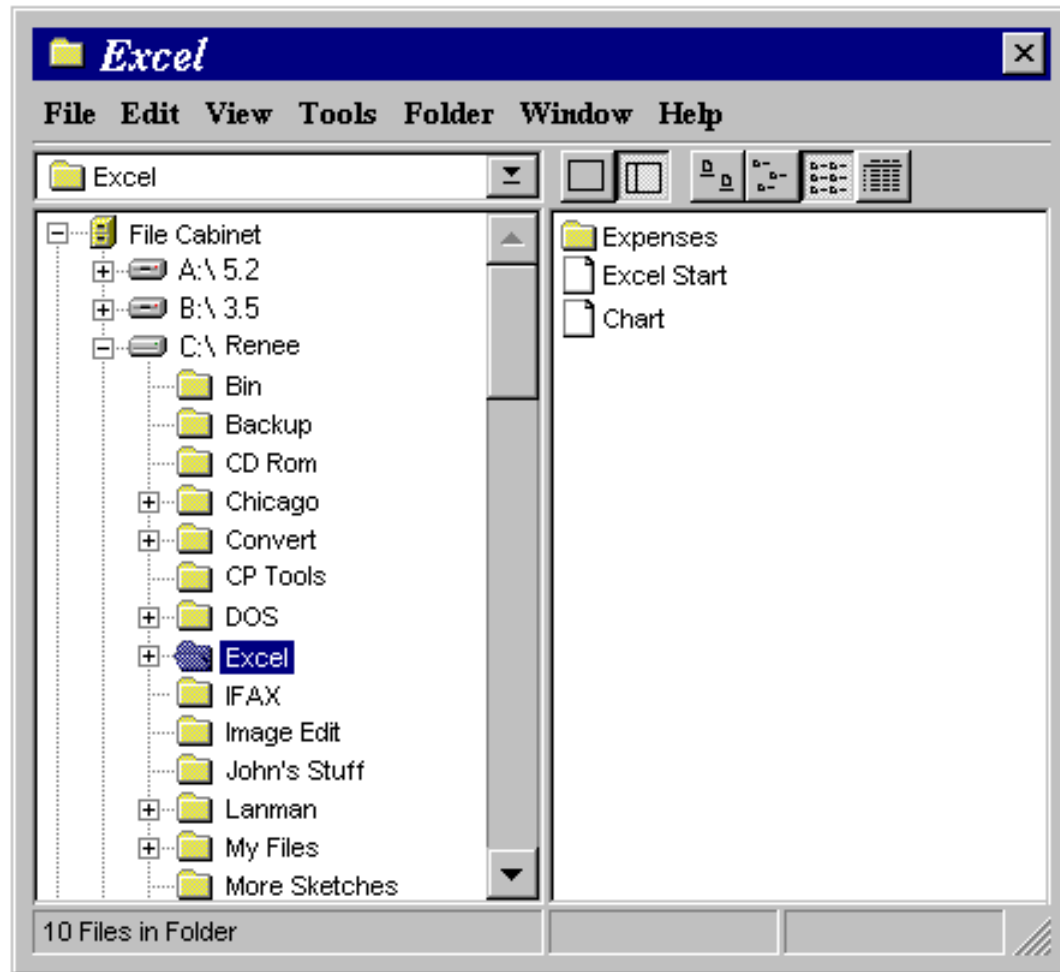
## Application and Document Icons \_\_\_\_\_

|                   | Excel  | Notebook   |
|-------------------|--|--|
| Application Icons |    |   |
| Document Icons    | <div>1</div> <div>1. shows designed icons</div>  <div>2. shows default icons</div>   | <div>2</div>   |

# Scalability

- ◆ **Fonts:** icon text, title bars, system font, TrueType<sup>®</sup>, etc.
- ◆ **Control sizes:** scroll bars, menu bars, window borders, title bars, etc.
- ◆ **Color:** interface 3-D, fonts, title bars, work-space areas, selection, toolbar images, etc.
- ◆ **Interface schemes**

# User Customizable Color, Font, And Size Metrics









# Summary

- ◆ **Leverage off the system**
- ◆ **Use 3-D with restraint**
- ◆ **Involve designers**
- ◆ **Think globally when inventing something new**
- ◆ **Details count!**